

Please change these two sentences to one sentence which reads as follows:

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—The present application is a division of U.S. Application Serial No. 09/472,372 filed December 23, 1999, now U.S. Patent No. 6,256,683, which in turn claimed the benefit of U.S. Provisional Application Serial No. 60/113,637 entitled "Methods and Apparatus for Providing Direct Memory Access (DMA) Engine" and filed December 23, 1998 which is incorporated by reference in its entirety herein.—

Please replace the paragraph beginning at page 6, line 1 and extending to page 7, line 19 with the following paragraph which has been updated to include serial numbers and patent numbers as appropriate:

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—Further details of a presently preferred ManArray core, architecture, and instructions for use in conjunction with the present invention are found in U.S. Patent Application Serial No. 08/885,310 filed June 30, 1997, now U.S. Patent No. 6,023,753, U.S. Patent Application Serial No. 08/949,122 filed October 10, 1997, now U.S. Patent No. 6,167,502, U.S. Patent Application Serial No. 09/169,255 filed October 9, 1998, U.S. Patent Application Serial No. 09/169,256 filed October 9, 1998, now U.S. Patent No. 6,167,501, U.S. Patent Application Serial No. 09/169,072 filed October 9, 1998, now U.S. Patent No. 6,219,776, U.S. Patent Application Serial No. 09/187,539 filed November 6, 1998, now U.S. Patent No. 6,151,668, U.S. Patent Application Serial No. 09/205,558 filed December 4, 1998, now U.S. Patent No. 6,173,389, U.S. Patent Application Serial No. 09/215,081 filed December 18, 1998, now U.S. Patent No. 6,101,592, U.S. Patent Application Serial No. 09/228,374 filed January 12, 1999, now U.S. Patent No. 6,216,223, U.S. Patent Application Serial No. 09/238,446 filed January 28, 1999, U.S. Patent Application Serial No. 09/267,570 filed March 12, 1999, U.S. Patent Application Serial No. 09/337,839 filed June 22, 1999, U.S. Patent Application Serial No. 09/350,191 filed July 9,

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1999, U.S. Patent Application Serial No. 09/422,015 filed October 21, 1999, U.S. Patent Application Serial No. 09/432,705 filed November 2, 1999, U.S. Patent Application Serial No. 09/471,217 filed December 23, 1999, now U.S. Patent No. 6,260,082, as well as, Provisional Application Serial No. 60/139,946 entitled "Methods and Apparatus for Data Dependent Address Operations and Efficient Variable Length Code Decoding in a VLIW Processor" filed June 18, 1999, Provisional Application Serial No. 60/140,245 entitled "Methods and Apparatus for Generalized Event Detection and Action Specification in a Processor" filed June 21, 1999, Provisional Application Serial No. 60/140,163 entitled "Methods and Apparatus for Improved Efficiency in Pipeline Simulation and Emulation" filed June 21, 1999, Provisional Application Serial No. 60/140,162 entitled "Methods and Apparatus for Initiating and Re-Synchronizing Multi-Cycle SIMD Instructions" filed June 21, 1999, Provisional Application Serial No. 60/140,244 entitled "Methods and Apparatus for Providing One-By-One Manifold Array (1x1 ManArray) Program Context Control" filed June 21, 1999, Provisional Application Serial No. 60/140,325 entitled "Methods and Apparatus for Establishing Port Priority Function in a VLIW Processor" filed June 21, 1999, Provisional Application Serial No. 60/140,425 entitled "Methods and Apparatus for Parallel Processing Utilizing a Manifold Array (ManArray) Architecture and Instruction Syntax" filed June 22, 1999, Provisional Application Serial No. 60/165,337 entitled "Efficient Cosine Transform Implementations on the ManArray Architecture" filed November 12, 1999, and Provisional Application Serial No. 60/171,911 entitled "Methods and Apparatus for Loading of Very Long Instruction Word Memory" filed December 23, 1999, respectively, all of which are assigned to the assignee of the present invention and incorporated by reference herein in their entirety.

Please replace the paragraph at ~~page 12, lines 1-12~~ with the following paragraph which has been updated to include a missing serial number, as well as, the patent number:

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—Each transfer controller within a ManArray DMA controller is designed to fetch its own stream of DMA instructions. DMA instructions are of five basic types: transfer; branch; load; synchronization; and state control. The branch, load, synchronization, and state control types of instructions are collectively referred to as “control instructions”, and distinguished from the transfer instructions which actually perform data transfers. DMA instructions are typically of multi-word length and require a variable number of cycles to execute although several control instructions require only a single word to specify. Although the presently preferred embodiment supports multiple DMA instruction types as described in further detail in U.S. Patent Application Serial No. 09/471,217 filed December 23, 1999, now U.S. Patent No. 6,260,082, and incorporated by reference in its entirety herein, the present invention focuses on instructions and mechanisms which provide for flexible and efficient data transfers to and from multiple memories.

Please replace the paragraph at ~~page 20, lines 13-21~~ with the following paragraph which has been updated to include a missing serial number, as well as, the patent number:

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—The following aspects of the loop formulation are noted. When the requested number of accesses are made (TC in Figs. 10-12) then all loops are exited immediately, leaving all address and loop control variables in their current states. By using logical “while” loops and reinitializing a loop only at its exit, it is possible to reenter the loops and continue a transfer after “terminal count” (TC) addresses have been accessed. This capability is used in this invention to allow transfers to be restarted so that the addressing continues as though it would if the transfer count had not been exhausted. For further details of such transfers see U.S. Application Serial